

try, or in the world for that matter? Did they no' hae the same chance tae be dishonest, without being found out, as the rest o' mankind? There's na doot about it, but they thocht o' ither things than juist what man's law wad dae tae them, or wouldn't dae, gin they were smart eneuch. They thocht o' the future, o' twenty or feerty years ahead when they wad hae tae reap what they had been sowing, no mather whether anyone besides themselves kenned aboot the weeds in their seed grain or no'. In ither words the actions that went tae build up their character were clean and honest, whether they were dealing wi' the world or wi' themselves, an' they were clean an' honest because they kenned that in the lang rin there's na ither way tae happiness an' peace o' mind. An' say what ye like, these are the twa things that humanity has been chasin' these guid mony thousand years. Money or onything else is only at best a means tae this end, as we can see, of course, when we stop tae think aboot it. Tak' a mon like Gladstone for instance. Dae ye think it mattered tae him what the law was on ony question he had tae decide? It was juist a case where what he believed tae be richt made him decide against what he thocht was wrang. An' there are thousands o' the best men o' the world that are guided by their conscience, an' the wish tae mak' the maist o' their lives, that dinna' gie a second thought tae what the law has tae say aboot this or that. For we can mak' laws tae protect oorselves against the crookedness o' ither, but we canna' mak' laws tae protect us frae being dishonest wi' oorselves. Not an' get them pit on the Statute Boo's onyway. Gin we want tae hae onything at the end tae pay us for a oor trouble in gettin' through this world we want tae keep straight, no matter what the laws may be. There is na credit in daein' richt juist because ye canna' get the chance tae dae wrang. What like chap did Robbie Burns hae in mind, dae ye think, when he said,

"The honest man though ere sae poor,
Is king o' men for a' that."

Gin ye ask me I dinna' think he was referin' exactly tae the kind o' gentlemen who keeps one eye on the policeman while his hand is in the ither fellow's pocket.

Auld Robbie could aye strike the nail on the head when he took tae moralizin', though he used tae rin out o' the "straight an' narrow way" once in a while himsel'. Maybe that's why he could talk sae muckle tae the point. I've seen preachers o' that kind afore noo. They ken where tae hit. Even when they get tae talkin' aboot dishonesty.

SANDY FRASER.

The Farming Special.

As announced in a previous issue of "The Farmer's Advocate" the Ontario Department of Agriculture have been running a farming special over the lines of the C. P. R. during the past few weeks. While the train carried very little new material as compared with that shown on other like trains in past years those people living adjacent to the C. P. R. line and close enough to the various stops to be able to visit the demonstration were well repaid for time spent both on the train and at the meetings held in the evening.

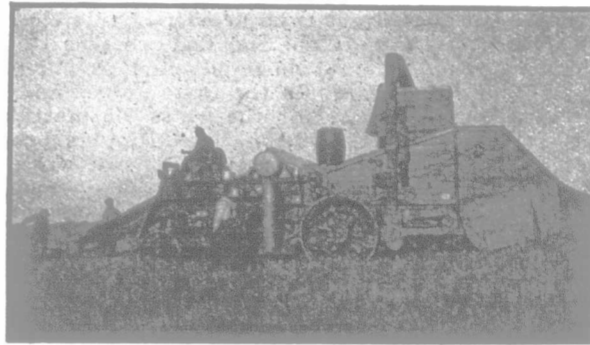
A representative of this paper visited the train at one of the stops in Middlesex County and found a very good crowd present, and considerable interest shown in the various subjects taken up by the specialists in charge of the various departments represented in the exhibits. One coach of the two which composed the train was given over to live-stock work and carried two horses, three cattle, and eight sheep. Those responsible for the demonstration stock were certainly fortunate in securing a Clydesdale filly and a Percheron filly, winners at the recent Canadian National Exhibition, and two of the real good ones of their respective breeds. The cattle comprised a Holstein, an Ayrshire, and a milking Shorthorn cow, while the sheep were Shropshires and Cotswolds, representing the medium-wool breeds and the long-wool breeds. The talks on stock and stock breeding, with the animals on the ground as a demonstration, proved the best drawing card.

In the other coach were to be found exhibits of weeds and seeds, poultry appliances, dairy utensils, the various types of lightning rods, and drainage tools and plans, and exhibits of grains, etc., from the Field Husbandry Department of the O. A. C. Those in charge of the exhibits were ready and willing to answer questions regarding any of these branches of agriculture.

These demonstration trains have been described several times in "The Farmer's Advocate" and there is very little new to be said about them. However, they are still doing a good work and people living in a district visited by the train should not fail to spend at least an afternoon listening to the demonstrators and looking over the exhibits. If those in charge of the planning of routes for the trains change the stopping places from year to year this feature of agricultural educational work should not very soon wear thread bare.

A Stook Thresher Used In the West.

To the man who has lived and farmed east of the Great Lakes the operations of the grain grower in the West appear extensive indeed. Machinery propelled by gasoline or steam is doing the work of many men, and without such power a crop approaching the 300,000,000-bushel mark would not have been possible this year. On the extensive grain farm or ranch large and heavy machinery has worked wonders. Returning from a three-month's visit to the Prairie Provinces, Thos. N. Havens, of Elgin County, Ont., related some of his experiences to the staff of "The Farmer's Advocate," and described in particular a thresher which to him appeared like a wonderfully efficient piece of machinery.

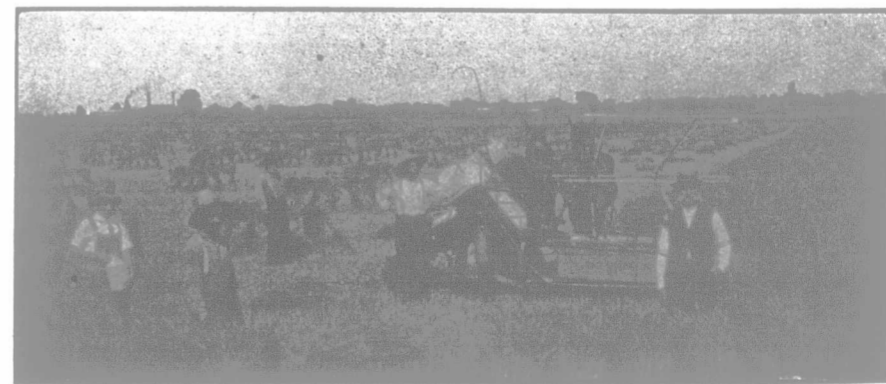


A Stook Thresher.

This stook thresher is used in the West by extensive grain growers.

The separator in question was propelled by a powerful gasoline engine, but it also carried another engine to operate the machinery. It was equipped with a 32-inch cylinder and was a self-feeder, the sheaves being thrown upon a table which projected out in front. One man sat at the wheel and directed the machine across the field, for it was used essentially for stook threshing. Four spike pitchers who worked in pairs were employed. One pair would knock down a stook and have it ready so when the table of the separator approached within ten feet, of them they could begin pitching on the sheaves. When done with their stook they would pass by the next stook where the other pair would be waiting and go on to the next one and have it ready. In this way the machine would often go the entire length of the field without stopping. On top was a large tank which held 50 bushels of grain, and when it filled it could be emptied through a pipe into a wagon used for conveying the grain to the elevator or storing place. Five men and a chore boy with a horse and wagon to supply fuel, water, or other requisites operated the thresher.

Mr. Havens commented on the difficulties experienced by farmers on small holdings in some localities to procure help. They had no money neither could they procure loans from the banks on their wheat even after it was threshed. In many cases their homesteads were mortgaged and they owed the Government for their seed grain. The banks or loan companies did not consider



A Good Crop of Wheat.

This field of 24 acres yielded 50 bushels per acre. It is a reclaimed field, for a few years ago it would not grow 30 bushels of oats per acre. A short rotation and thorough cultivation brought about the change. The field is owned by W. D. Sanders, Exeter, Ont.

them good security, but after they obtained their receipt checks showing the grain had been delivered to the elevator or dealer they could procure money.

When the war broke out, and later, it was stated that Germany was prepared for a six month's fight but it now appears that she was fairly ready for a war of a year and a half, but her zenith has been reached and it is now a matter of how long she can last. Will it be six months, a year, or a year and a half more? The Allies gain strength—the central powers weaken.

Insect Friends and Foes of Agriculture.

Every farmer is forced to come in contact with his insect foes and, therefore, knows something about them, but very few farmers know that there is a large number of insects that are not foes at all, but are friends. We shall, therefore, discuss these friends first.

INSECT FRIENDS.

The first class of friends we shall treat of is composed of those insects which aid agriculture by acting as pollinizers of plants. Almost everyone knows that before a plant can produce a fruit or seed some of the pollen must first be placed on the sticky tip of the pistil. This act fertilizes the plant and is called "pollination." In this work honey bees are the most important insect agents, but bumble bees and numerous other wild bees help greatly, as do also wasps, various kinds of flies, moths, butterflies and many other insects. Many of the lower kinds of plants, or plants with inconspicuous flowers are pollinated in other ways, for instance by the wind, but nearly all plants with conspicuous bloom require the aid of insects for proper and full fertilization. What would happen if we had none of this class of insect friends? We should not have more than one apple, or pear, or plum, or peach or any of our other much loved fruit to the one hundred or more we now enjoy. Moreover there would be practically no fields or tomatoes, pears or beans, or of several other crops that are so necessary to us as foods.

The second class of insect friends consist of those insects that supply us with food, either directly or indirectly, through serving as food for the fish and birds that we use as food. Many tons of honey are produced in every country by the honey bee. A large part of the food of our fresh-water fishes consists of the water insects that live about the shores of the lakes and rivers that these fish frequent. Even the larvae of the troublesome mosquito serves in this way a useful purpose. Both domesticated and wild fowl feed to a great extent upon insects, the latter especially during the nesting season. So without taking time to go more into details we see that many insects may be friends in this important matter of providing food for us.

A third manner in which insects may act as our friends is as scavengers. If all the dead animals and plants, including trees of course, were to lie undestroyed on the surface of the earth they would soon make an intolerable condition of affairs. But scarcely in the summer does an animal or plant die before there gather to it various insects that quickly hasten the process of decay. Some of the insects that feed on dead animals are carrion beetles, rove beetles, blow flies and flesh flies. Any one who has watched how quickly a dead horse or smaller animal becomes a seething mass of insect life will readily understand why it has been said that a blow-fly can destroy a dead ox as quickly as a lion.

In the case of trees we have all seen beautiful pine trees that have been cut down or fallen and allowed to lie for a year or two in the forest, and then, when examined, are found to be perforated in numerous places by borers.

These borers are merely the larvae of certain kinds of beetles, chiefly long-horned beetles. We feel disappointed at the injury to the tree, but in nature the insects while themselves feeding on the wood are at the same time serving a useful purpose, because these holes allow the more rapid and deep entrance of disease and so hasten greatly the rate of disintegration of the tree. We see, therefore, that insects help us greatly by removing dead animals and plants and thereby giving back to the earth the substances of which they are composed and at the same time making room for other animals and plants to take their place.

The fourth way in which insects serve as friends is by many useful kinds helping to control injurious kinds. One class of insects that helps in this way is known as parasites, and another as predaceous insects. The latter merely capture their victims and feed on them as a lion would capture and devour a smaller animal, but the former kind pass all their larval stage either in or attached to their victims, finally killing them. There are many kinds of parasitic insects such as Tachinid Flies and Ichneumonids, some resembling very closely house-flies, others resembling wasps. The latter may be quite large and sometimes have a very long ovipositor or egg-laying apparatus, or they may be extremely small.